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ABSTRACT

Twenty-two elementary and secondary schools from throughout the five-county Southeastern Pennsylvania region were selected by Project KARE (Knowledgeable Action to Restore our Environment) to receive grants for Local Action Programs (LAP) of environmental education during 1973-1974. This guide reviews these twenty-two programs including the program name, the school name and address, program leaders, number of participating students and grade level, geographic and demographic descriptions of the school, and a synopsis of program goals and activities. The programs reviewed in the guide cover environmental topics such as nature study areas, air pollution, cemetery studies, and land, air and water studies. (TK)

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SKETCHES OF LOCAL ACTION PROGRAMS

FOR SCHOOL ENVIRONMENTAL EDUCATION

Conducted by Local Schools from December, 1973 to June, 1974, under the auspices of
Project KARE Colony Office Building Route 73 and Butler Pike Blue Bell, Pa. 19422
Matthew M. Hickey, Director Telephone (215) 643-7600

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INTRODUCTION

Twenty-two (22) elementary and secondary schools from throughout the five-county Southeastern Pennsylvania region were selected from among 56 applicant schools by Project KARE to receive grants for Local Action Programs (LAPs) of environmental education during 1973-74. Project KARE is funded under ESEA, Title III, Section 306 by the United States Office of Education in Washington, D.C. The Montgomery County Intermediate Unit serves as Local Educational Agency for the Project.

LOCAL ACTION PROGRAMS

AIR WATCHERS	Frankford High School/Philadelphia S.D.
BKEP	Bishop Kenrick High/Archdiocese
CHOICE IS YOURS	Samuel Everitt Elementary/Neshaminy S.D.
CRISIS	Marple Newtown/Marple Newtown S.D.
DARE	Lydia Darrah/Philadelphia S.D.
EAP	Nether Providence/Wallingford-Swarthmore S.D.
E-LAB	Samuel K. Faust/Bensalem S.D.
ESAN	Pottstown Jr.-Sr. High/Pottstown S.D.
GEEP	Friendship Elementary/Coatesville S.D.
GREEN BRIDGE	C.E.Pickett/Philadelphia S.D.
ISWS	Conestoga-Great Valley/T-E-Great Valley S.D's
KARE FOR KENSINGTON	W.F. Miller Elementary/Philadelphia S.D.
KAREBROOK	The Meadowbrook School/Private
LAW	Bristol Jr.-Sr. High School/Bristol Boro S.D.
OPEN SPACE	Upper Merion Jr. High/Upper Merion S.D.
OPERATION CEMETERY	Rhodes Middle School/Philadelphia S.D.
O-PROBE	Oxford Area Intermediate School/Oxford S.D.
PRINCE HALL PRIDE	Prince Hall Elementary/Philadelphia S.D.
PROJECT CAHOOTS	Alain Locke Elementary/Philadelphia S.D.
PROJECT DYNAMIC	Dynamic Springs Prep/Private
PROJECT LISTEN	Amosland Elementary/Ridley S.D.
SCRAP	North Penn High School/North Penn S.D.

LAP Name: AIR WATCHERS

LAP School: Frankford High School
(Philadelphia District #7)
Oxford Avenue & Wakeling Street
Philadelphia, Pennsylvania 19124
Mr. James Killough, Principal
(JE5-2880)

LAP Leaders: Mr. Gary Jon Seifert, Leader
Ms. Beverly Carmean, Co-Leader

LAP Students: Approximately 60 students selected from grades 10 and 11.

Descriptors: Located in an industrial area of Philadelphia, Frankford High is an urban public school of approximately 2700 students in grades 10 through 12.

Synopsis: Air pollution serves as the chief environmental concern of students participating in this LAP at Frankford High School. The aim is to establish and operate an air-monitoring and weather monitoring station atop the school. Initially, students are being trained in the techniques of gathering and studying samples of air, particulates, and alien gases and testing water for pollutants filtered from the air. Monitoring devices include High Volume Air Samplers, Lead Candle Sulfate Testers, Dust Fall Jars, an Automatic Precipitation Collector for the study of radiation from the atmosphere, and a Dust Spot Analyzer. In the field, students armed with cameras and Ringelmann Charts, are surveying the community continuously to identify prime air polluters from industrial and city government sectors. Close liaison has been established with Air Management Services of Philadelphia which is providing technical assistance in training the students and interpreting their data. The weather station yields information including wind strength and direction, humidity, and barometric pressure which correlates integrally with the air-pollution data. LAP activities not only give students opportunities to understand air pollution, but also permit them to interact with government agencies in enforcing existing air-pollution regulations and finding means to abate the flow of pollutants.

LAP Name: BKEP -- Bishop Kenrick Environmental Program

LAP School: Bishop Kenrick High School
(Archdiocese of Philadelphia)
Norristown, Pennsylvania 19401
Rev. Richard Lahart, Principal
(275-2846)

LAP Leaders: Sister Regina Christi, Leader
Mr. Joseph Mulhern, Co-Leader

LAP Students: The core group consists of approximately 20 students selected from 10th to 12th grades.

Descriptors: Located in the Borough of Norristown, Montgomery County, Bishop Kenrick is operated by the Roman Catholic Archdiocese of Philadelphia and enrolls approximately 1,850 students in grades 9 through 12.

Synopsis: Principal concerns of LAP students are the recent flooding of Norristown, Pennsylvania, by the Schuylkill River and the polluted condition of the river. Efforts are being made to better understand the causes of the flooding by examining geologic maps, analyzing feeder stream run-offs, and investigating land-usage patterns. Several sites have been selected for intensive water studies for biological, chemical, and physical pollution. At each site, a complete battery of tests are being performed, including water and soil testing, macro- and micro-biologic testing, stream flow and sedimentation, and fish profiles. Using canoes to gather samples, the students cover approximately 50 miles of the river from above Limerick Township, Montgomery County, to the confluence of the river with the Delaware River in a tidal basin. A special feature of the LAP is a comparative-environment study whereby students perform intensive research of salt water/estuarine environments at Cape Henlopen in Lewes, Delaware and then compare data with that obtained during studies of the Schuylkill River.

LAP Name: CHOICE IS YOURS

LAP School: Samuel Everitt Elementary School
(Neshaminy School District)
Forsythia Drive
Levittown, Pennsylvania 19056
Mrs. Dorothy Jeske, Principal
(757-6901)

LAP Leaders: Mrs. Dorothy J. Jeske, Leader
Ms. Catherine A. Wing, Co-Leader

LAP Students: Approximately 85 students, grades 1 through 6, all members of the Everitt Ecology Club.

Descriptors: A public school enrolling 548 students, the Samuel Everitt Elementary School serves a suburban community in Lower Bucks County.

Synopsis: The prime objective of the LAP is to utilize effectively an area adjacent to the school for student environmental studies and teacher in-service training in environmental education. This area, the Mill Creek Watershed and Green Belt, has been permitted to deteriorate for a number of years. Consequently, initial activities involve cleaning trash and refuse out of the creek, and preparing the site as an outdoor laboratory. Students are performing analysis of the creek for chemical and biologic pollutants, macroinvertebrates, and physical parameters. Presently, the students are preparing a multi-media survey of environmental damage not only of the immediate creek area but also of the community-at-large. During the course of the LAP, it is anticipated that the students will have established a complete profile of the creek and its watershed by combining data from sampling with information obtained through plane-table mapping, examination of geologic survey maps, transect studies, and flora/fauna identification. Other plans call for construction of an outdoor classroom and nature trails on the site as well as comparative studies of other streams in the region which are polluted to lesser and greater degrees. In addition to developing learning activities packets and materials, the teachers of Samuel Everitt School are participating in a comprehensive in-service program which features a special camping experience with their students at the Pocono Environmental Education Center.

LAP Name: CRISIS

LAP School: Marple Newtown Senior High School
(Marple Newtown School District)
120 S. Media Line Road
Newtown Square, Pennsylvania 19073
Mr. William Capriotti, Principal
(EL6-9400)

LAP Leaders: Mr. Steven Becker, Co-Leader
Mrs. Miriam Bedein, Co-Leader

LAP Students: The core group consists of 35 students, grades 9-12.

Descriptors: Marple Newtown Senior High School draws 2030 students from a suburban community of Delaware County. The school contains grades 9-12.

Synopsis: The LAP objective is to approach environmental education in a fashion similar to developing and implementing an "environmental impact statement". This requires that the community be integrally involved in the LAP activities since the ultimate success in dealing with environmental problems emerges only through a broad base of support. The principal learning activities for LAP students are achieved by initiating an interdisciplinary course of environmental studies within the context of the school curriculum. In Social Science, students are surveying attitudes of residents concerning solid waste management and recycling. In Science, students are conducting tests for water, soil and air pollution. Meantime, working on specific environmental problems in the community, students are developing "impact statements" for the Blue Route (transportation), recycling, pollution of Darby Creek and local sewerage systems.

LAP Name: DARE -- Darrah Achieves Restoration of Its Environment

LAP School: Lydia Darrah Elementary School
(Philadelphia District #2)
17th & Brown Streets
Philadelphia, Pennsylvania 19130
Mrs. Olive G. Snead, Principal
(P05-0875)

LAP Leaders: Mrs. Olive G. Snead, Leader
Mr. Anthony Johnson, Co-Leader
Mrs. Marie Jordan, Co-Leader

LAP Students: The core group consists of five classes of students in grades 4 through 6.

Descriptors: Situated in the inner-city Model Cities Area of Philadelphia, the Lydia Darrah School is a public school enrolling over 500 students in Prekindergarten through grade 6.

Synopsis: Student concerns center on the apparent insentivity of students, teachers, and community to various environmental problems within their neighborhood. Specific concerns include littering, glass breakage, clogged sewers, abandoned houses and cars, and rat infestation. LAP activities take a fourfold thrust: 1) to deal directly with community deterioration, 2) to develop a vacant lot into an environmental studies area, 3) to create student and community awareness regarding environmental problems and 4) to inculcate and clarify environmental values. Initially students are preparing a multi-media survey of environmental problems encountered in the community. Liaison is being established with various community agencies including the Department of Health, Job Corps, Rat Control, Model Cities, and the City Police Department. Clean-Up, Paint-Up, Fix-Up days have been organized and conducted with cooperation of the City Department of Sanitation; and window planting boxes are being built by the students for installation in the neighborhood. The vacant lot, adjacent to the school parking lot, is being readied for landscaping, planting of organic gardens, an urban-plant nursery, and utilization for soil testing and transect studies. Meantime, the students have been initiating an intensive campaign to alert the community to environmental problems. Artwork, posters, slogans, bulletin boards, illustrated songs, plays, and debates have been developed by the students as weapons in this campaign.

LAP Name: EAP -- Ecological Alternative Program

Lap School: Nether Providence Middle School
(Wallingford-Swarthmore School District)
205 S. Providence Road
Wallingford, Pennsylvania 19086
Mr. Thomas McKinney, Principal
(L06-9000)

LAP Leaders: Mr. David Knudsen, Leader
Mr. George F. Shuster, III, Co-Leader

LAP Students: A total of 30 students selected on a volunteer basis from grades 9 and 10.

Descriptors: Enrolling over 1200 students in grades 9 and 10, Nether Providence Middle School serves suburban communities in Delaware County.

Synopsis: The community served by Nether Providence High School is uniquely situated since it consists in part of several volatile watersheds and biomes and is strategically located near areas of immense ecologic interest. These natural phenomena include the Ridley, Crum Creek, and Darby Creek Watersheds, Tinicum Nature Preserve, Bombay Hook National Waterfowl Refuge, Ridley Creek State Park, the Jersey Pine Barrens, Tyler Arboretum, and the Marine Science Consortium. The LAP students and staff, accordingly, are engaging in intensive study of each site and developing learning activities for continued study by other students in future years. Student research techniques include water and soil sampling, flora/fauna identification, mapping exercises, and macroinvertebrate studies. Thus, their investigations are more than field trips. Rather, the investigations are environmental learning activities which require the students to be actively involved in gathering and analyzing data, and clarifying environmental values. The culminating activity will be an environmental survival course for volunteer students.

LAP Name: E-LAB -- Environmental Laboratory

LAP School: Samuel K. Faust Elementary School
(Bensalem Township School District)
2901 Bellview Drive
Cornwells Heights, Pennsylvania 19020
Mr. Robert A. Capron, Principal
(639-1080)

LAP Leaders: Mr. Robert A. Capron, LAP Leader
Mr. Glen Welker, Co-Leader

LAP Students: The entire school enrollment, consisting of 930 students in kindergarten through grade 5 including 18 handicapped students.

Descriptors: Bensalem Township School District serves a rapidly-developing suburban community in lower Bucks County.

Synopsis: The chief student environmental concern centers on the apparent community disregard for natural areas adjacent to the school to the extent that the Poquessing Creek is filled with debris and the watershed area has been abused. Immediate efforts were made by LAP students to clean up the site and develop it into an effective outdoor environmental laboratory. Key activities included clearing the wooded area of trash and litter, analyzing erosion problems and seeking arrestive methods, testing soil and water in the outdoor laboratory, establishing a landscaping nursery, and identifying existing plants and animals. In addition, the students are performing macroinvertebrate studies, transect investigations, and plane-table mapping. Concurrently, the LAP staff are preparing a variety of environmental learning activities for continued use in the environmental laboratory. An important feature of the LAP entails significant community support and assistance in developing the outdoor laboratory.

LAP Name: ESAN -- Environmental Study Areas Needed

LAP Schools: Pottstown Junior High School
Pottstown Senior High School
(Pottstown School District)
Beech and Penn Streets
Pottstown, Pennsylvania 19464
Mr. Alfred T. Shantz, Principal (Jr. H.S.)
Mr. Charles E. Brown, Principal (Sr. H.S.)
(323-8200)

LAP Leaders: Mr. Terry Burnley, LAP Leader
Miss Elizabeth Albert, Co-Leader

LAP Students: The core group of students consists of 15 students in grade 9, and 15 students in grades 11-12, inclusive.

Descriptors: Enrolling approximately 1,750 students in grades 8-12, Pottstown School District serves a largely urban borough in northwestern Montgomery County.

Synopsis: The objective for LAP students was to locate, evaluate, and utilize various sites within the borough of Pottstown for environmental studies. These study sites included private properties, borough-owned tracts, and school campuses. Initial student activities included identifying and mapping selected sites; and performing chemical, physical, and biologic analyses of various biotic and abiotic factors located on the sites. Eventually, efforts were made to develop the sites as permanent natural studies areas and to maintain the sites for continued community and student use. Cooperating with local government, the students increased their environmental skills, became more aware of local ecologic interrelationships, and established factual bases on which to make realistic decisions concerning environmental issues. In particular, the students have become competent in restoration of natural areas by creating trails, developing interpretive guides, and analyzing the various environmental parameters of the sites.

LAP Name: GEEP -- Generating an Environmental Education Park

LAP School: Friendship Elementary School
(Coatesville Area School District)
300 Reeceville Road
Coatesville, Pennsylvania 19320
Mr. Arnold Kring, Principal
(384-6040)

LAP Leaders: Mr. Harry Martini, LAP Leader
Mr. Arnold Kring, Co-Leader

LAP Students: A total of 235 students including 30 students in grade 7 at North Brandywine Middle School and 25 students in grades K-8, with learning disabilities.

Descriptors: Coatesville Area School District, located in western Chester County, contains urban, suburban, and rural communities within its boundaries. Friendship Elementary School enrolls 450 students in grades K-5.

Synopsis: The chief objective of LAP activities was to develop an environmental education park on school property situated between Friendship Elementary School and North Brandywine Middle School. When fully-completed, the park will serve as a study center for outside classroom activities, scouting functions, and recreational activities of senior citizens. Developed on 15 areas of presently-unused school property, the park consists of nature trails, study stations, and demonstration areas for analyzing air, water, and soil pollution. Curricular materials have been drawn from the National Environmental Education Development (NEED) Program, Institute for Environmental Education, and Project ESSENCE of the American Geological Society. Specific learning activities include plane-table mapping, field studies, merit badge requirements, bird studies and preparing working models. The culminating activity will consist of a residential camping experience on the site incorporating various environmental studies as a pilot program which might be adopted by other schools in the system.

LAP Name: GREEN BRIDGE

LAP School: C. E. Pickett Middle School
(Philadelphia School District #6)
Wayne and Chelten Avenues
Philadelphia, Pennsylvania 19144
Ms. Francenia L. Emery, Principal
(VI4-2100)

LAP Leaders: Mr. Evo R. Giomi, LAP Leader
Mr. Robert Ferguson, Co-Leader

LAP Students: A total of 70 students in grade 6.

Descriptors: C. E. Pickett Middle School is a public school, grades 5-8, containing over 1,800 students drawn primarily from the Germantown section of Philadelphia.

Synopsis: The LAP activities aim to provide a "Green Bridge" between the natural environment of the community and the artificial, man-made school environment as well as blighted areas of the community. The major objective has been to establish study sites within the school and community for intensive studies by LAP students. Such areas at school include an arbor deck, outdoor laboratory, greenhouse, and plant nursery. In the community, students are utilizing vacant lots, window boxes, tree-planting corridors, branches of the Wissahickon Creek, and sectors of the neighborhood containing abandoned houses, derelict cars and graffiti-covered buildings. The prime outcome of the LAP is to encourage students to achieve an appreciation for and knowledge of their immediate environments in order to live harmoniously with nature and affect the living conditions of their man-made worlds.

LAP Name: ISWS -- Inter-School District Study of Land Resources Management Comparing Two Diverse, Chester County Watersheds

LAP Schools:

Conestoga High School
(Tredyffrin-Easttown School District)
Conestoga and Irish Roads
Berwyn, Pennsylvania 19312
Dr. John Rittenmeyer, Principal
(NI4-1440)

Great Valley High School
Route 401 and Phoenixville Pike
Malvern, Pennsylvania
Mr. Philip Esbrandt, Principal
(NI4-6610)

LAP Leaders: Dr. Ralph D. Heister, Jr., LAP Leader
Mr. Manuel Procopio, Co-Leader

LAP Students: The primary student group contains 54 students from Conestoga High School and 90 students from Great Valley High School.

Descriptors: Conestoga High enrolls 1900 students in grades 10-12; while Great Valley High School enrolls 1,450 students in grades 9-12. Both Schools serve suburban areas of Eastern Chester County.

Synopsis: This is a unique LAP since two neighboring School systems, Tredyffrin-Easttown School District and Great Valley School District, are cooperating to study in-depth, jointly-experienced environmental problems. Principal concerns of students center on two watersheds: the rapidly-urbanizing Valley Creek Watershed, and the rural Birch Run Watershed. The Great Valley students are analyzing ground water resources and air quality of the Valley Creek Watershed. Meantime, Conestoga students are determining land usage characteristics of the Birch Run Watershed, as well as surface and ground water resources and air quality parameters. Additionally, students are assaying Birch Run residents to ascertain how they are using the land and what their attitudes are toward zoning and environmental ordinances. By pooling data and conclusions, the students from both schools are jointly relating the effects of urbanization in one watershed to its relative absence in a neighboring watershed. A special feature of the LAP is an effort to research the best methods to involve community in a student operated recycling center which serves the attendance areas of both High Schools.

LAP Name: KARE FOR KENSINGTON

LAP School: W. F. Miller Elementary School
(Philadelphia District #5)
Howard North of Diamond
Philadelphia, Pennsylvania 19122
Mr. Bernard Whitman, Principal
(RE9-0538)

LAP Leaders: Mrs. Natalie Kempner, Leader
Ms. Dorothy Smith, Co-Leader

LAP Students: The core group consists of approximately 100 students selected from each grade level, K through 6.

Descriptors: Located in the Model Cities Area of Philadelphia, the W. F. Miller School draws all of its students from within four (4) blocks. Almost two-thirds of the students come from Spanish-speaking families.

Synopsis: The prime environmental concern of the students is deterioration of the school's neighborhood. The area is severely depressed with many abandoned houses and stores, rubbled-filled vacant lots, and neglected industrial sites. The LAP is using this neighborhood as an outdoor laboratory. Working with small groups of alienated or disruptive students, the LAP has planned activities which are high-interest and action-oriented dealing with familar surroundings. Initially, the students are doing a socio-ecological survey to determine "who and what lives and grows in the community, and what problems are being experienced." Other activities include: 1) setting up a "mini-museum" and workshop learning center inside the school for use by students, teachers, and community, 2) conducting discovery hikes throughout the neighborhood, 3) preparing a neighborhood discovery trail with self-guiding trail book, 4) attempting to improve the local environment with clean-ups, window planters, and backyard gardens, and 5) developing multi-lingual learning materials on environmental studies for Spanish-speaking youngsters. Special efforts are being made to secure support for the LAP activities from legislators and community agencies. Nature studies including water and soil sampling are carried out in Norris Square, a city park directly across from the school. Comparative studies by the students will occur during an outdoor learning experience at the Pocono Environmental Education Center, and on trips to other LAPs in suburban communities.

LAP Name: KAREBROOK

LAP School: The Meadowbrook School
(Private School)
Meadoworook & Hampton Roads
Meadowbrook, Pennsylvania 19046
Mr. Vincent Fiordalis, II, Headmaster
(884-3238)

LAP Leaders: Mr. Harry Krause, Leader
Mr. Ronald Chase, Co-Leader

LAP Students: The core group consists of 80 students from grades 5 through 8.

Descriptors: The Meadowbrook School is a private school located in Abington Township, Montgomery County. Enrollment consists of 130 students in grades Kindergarten through 8.

Synopsis: Providing additional facilities in the community for environmental studies provides the basis for LAP activities. In close cooperation with the Township Department of Parks and Recreation, the students are developing a tract of land into an outdoor laboratory and nature studies area. The tract is heavily-wooded, bisected by a sizeable stream, and relatively inaccessible to the local neighborhood. Designed by the students and LAP staff, when completed, the nature studies area will feature guided trails, an outdoor classroom, various sites for soil and water sampling, and experimental plots for organic gardening and succession studies. Preliminary activities involve installing a stone-surfaced parking lot and building wooden bridges across the stream. Presently, students are clearing trails, identifying trees and plants, mapping the area and performing geologic studies. Considerable attention is being given to devising learning activities and materials for use on-site. In addition to water and soil sampling, the students are performing macro-invertebrate studies and microbiologic analysis. Bird feeders are being constructed and the bird population is being established. Other activities include transect studies, terrain modeling, and animal identification. Eventually, it is anticipated that permanent facilities such as a nature center will be constructed by the Township in order that the nature studies area may be used by students from other schools in the community.

LAP Name: LAW--Land, Air, Water

LAP School: Bristol Junior-Senior High School
(Bristol Borough School District)
Wilson Avenue and Garfield Street
Bristol, Pennsylvania 19007
Mr. Michael McCool, Principal
(788-8461)

LAP Leaders: Mr. Dominick Potena, Leader
Mr. Larry Ciavola, Co-Leader

LAP Students: A total of 90 students in grade 8.

Descriptors: Bristol Borough, located in lower Bucks County, is a largely urbanized residential community containing a sizeable industrial sector. The Junior-Senior High School enrolls approximately 1,100 students in grades 7-12.

Synopsis: Student environmental concerns are threefold: land mismanagement, air pollution and water pollution. LAP students are engaging in selected process activities at various sites within the community, including the Delaware River and Canal, Adams Hollow Creek, borough industrial park, Silver Lake, Otter Creek, the school incinerator, and the Burlington-Bristol Bridge. Specific learning activities involve air sampling and testing, water testing for physical, chemical and biologic parameters, auto emissions studies, mapping and a litter survey. Industrial arts students are constructing much of the water sampling equipment used in the LAP, while history students are developing a heritage continuum to establish the genesis of environmental problems in the community. Considerable attention has been given by the LAP staff to the interface between residents and their government concerning environmental issues, and how this interface might be utilized effectively by students and residents to achieve a cleaner environment.

LAP Name: OPEN SPACE

LAP School: Upper Merion Junior High School
(Upper Merion Area School District)
435 Crossfield Road
King of Prussia, Pennsylvania 19406
Dr. Richard Snelling, Principal
(265-1500)

LAP Leaders: Mrs. Mary K. Wolle, Co-Leader
Mr. Ernani C. Falcone, Co-Leader

LAP Students: A total of 300 students in Upper Merion Junior High School. Also, 137 students in Roberts Elementary School and Caley Road Elementary School.

Descriptors: Located in suburban Montgomery County, Upper Merion Junior High School enrolls 1631 students in grades 7-9.

Synopsis: Student environmental concerns are threefold: 1) effective utilization of open-space sites adjacent to the schools; 2) development of the township cultural center as an environmental education site; and 3) the need for greater awareness of and appreciation for the role of man in the natural world. All student activities are geared to alleviate these concerns. At first, students surveyed sites, planned developmental measures, created nature trails, established outdoor classrooms and outdoor laboratories, and documented each stage of programming the appropriate usage of open space for environmental studies. In the process, the students acquired skills relating to mapping, tree identification, water and soil studies, animal life, and weather. At various opportunities, the students examined the interface between the resident and his government by consulting with representatives of Township Offices, the Park and Recreation Board, Soil Conservation District, Wayne Woods Garden Club, and the Planning Commission. The ultimate LAP objective is to establish a nature center at the Upper Merion Cultural Center through the cooperative efforts of the schools and the community.

LAP Name:	OPERATION CEMETERY
LAP School:	Rhodes Middle School (Philadelphia School District #4) 29th and Clearfield Streets Philadelphia, Pennsylvania 19032 Mr. Jacob Hoffman, Principal (221-0850)
LAP Leader:	Dr. Edward L. Stranix
LAP Students:	A total of 100 students in grades 7 and 8.
Descriptors:	Rhodes Middle School is a public-non-graded school located in an inner-city region of Philadelphia. Students are drawn from the Model Cities Area.
Synopsis:	The prime objective of Operation Cemetery is to provide students with better understandings concerning the environmental and sociologic facets of a very old cemetery located near the school. Environmental studies include identification and analysis of the total natural environment of the cemetery, including plants, animals, soil, and geologic formations. This aspect of the LAP is being coordinated by a representative of the Philadelphia Horticulture Society. Additional environmental studies involve radioactivity, feral dog populations, and landscaping skills. Sociologic studies find groups of students examining headstones and burial sites in search of information pertaining to the heritage of each era of people buried in the cemetery. Factors include age of death, special wishes written on headstones, ornate vs. plain tombs, years of epidemics, and life histories of important figure buried in the cemetery. Student activities entail headstone rubbings, searches of death registers, and contact with present-day relatives. An outstanding feature of this LAP is the availability of several student teachers and pre-student teachers who are working with students to individualize the learning activities. Additionally, the LAP activities will be filmed on 16 mm film and videotape for use with students in subsequent years.

LAP Name: O-PROBE

LAP School: Oxford Area Intermediate School
(Oxford Area School District)
602 Garfield Street
Oxford, Pennsylvania 19363
Mr. E. Worth Brown, Principal
(932-8961)

LAP Leader: Mr. Jerry L. Abrams

LAP Students: The core group is composed of 5 classes of students totaling 150 students.

Descriptors: Located in rural Chester County, Oxford Area School District enrolls nearly 3200 students in grades K - 12.

Synopsis: All the schools operated by the Oxford Area School District are situated on a common campus which includes a wooded area with a free-flowing stream. The LAP students and staff regard this part of the campus as an excellent site for a nature studies area for use by all the students in the school district. Accordingly, LAP activities are taking a three-fold thrust: 1) to develop the site as a nature studies area containing an outdoor classroom and an outdoor laboratory, 2) to devise and test learning activities and related curriculum materials, and 3) to train teachers and students to utilize the site effectively for interdisciplinary environmental studies. With strong community participation, the LAP has commenced construction of the outdoor classroom. Students have identified learning stations along the trails, and have begun to devise and pilot activities including water and soil testing, mapping, and macroinvertebrate studies. Meantime, a weather station is being erected by a group of elementary school students who will maintain daily records monitoring various metereologic parameters. A special feature of the LAP is the construction of various water testing equipment by shop students.

LAP Name: PRINCE HALL PRIDE

LAP School: Prince Hall Elementary School
(Philadelphia District #6)
Gratz Street and Godfrey Avenue
Philadelphia, Pennsylvania 19141
Mrs. Martha C. Young, Principal
(WA7-7024)

LAP Leaders: Ms. Marjorie Elliott, Leader
Mrs. Lillian Miles, Co-Leader

LAP Students: Approximately 420 students from grades 4 through 6.

Descriptors: The Prince Hall School, recently opened, is non-graded public elementary school with 1,000 students normally in grades Kindergarten through 6. The school serves a highly-populated largely residential area of Philadelphia.

Synopsis: The foci of students concerns are the school and its immediate environment. Located in an increasingly-urbanized area of Philadelphia, the students are alarmed by the decay and deterioration experienced by other schools and communities within the city. Thus, major LAP activities are geared to assisting the students clarify their environmental values and pursue activities which preserve their environment. Starting with their school, the students are landscaping the school grounds and caring for the ornamental plantings. Moving into the neighborhood armed with taperecorders and cameras, the students are documenting environmental problems as a basis for joint student-community action. Already, efforts are being taken to rehabilitate an abandoned building near the school for use as an environmental center. Other activities include: 1) establishing and operating a weather-monitoring station atop the school, 2) organizing a 4-H Club, 3) constructing flower boxes and planters for distribution to the community, and 4) sampling water and soil of nearby streams. In creating the Prince Hall's Pride Patrol, teams of students which deal directly with environmental problems, attention is focussed on the responsibilities of the students to assume leadership in conducting LAP activities. Hopefully, through this structured process, the students will arrive at solutions, partial at best, which will attack the pressing problems of neighborhood blight, and neglect of community resources.

LAP Name: PROJECT CAHOOTS

LAP School: Alain Locke Elementary School
(Philadelphia District #1)
4600 Haverford Avenue
Philadelphia, Pennsylvania 19139
Mr. James E. Barlesdale, Principal
(EV6-2053)

LAP Leaders: Mrs. Dessie Stephens, Leader
Ms. Jacquelin Austin, Co-Leader

LAP Students: Approximately 120 students in grades 5 and 6.

Descriptors: Located in West Philadelphia, Alain Locke School is an urban public school serving nearly 900 students in grades kindergarten through 6.

Synopsis: Principal concerns of Project Cahoots students are the various environmental problems encountered by students in a highly congested community where the man-made world abounds. Initial activities focus on the condition of the school playground and immediate environment. This site is being developed by the students into a natural area by planting trees and shrubs, controlling erosion, and establishing student garden plots. Subsequent activities will take the students beyond the four city blocks served by the school. Selected sites include Cobbs Creek, several parks, the zoo and sites being developed by LAPs in suburban communities. In this way, the students will achieve better understandings of the multitude of natural environments and man's interdependence with nature. All LAP activities are being documented by the students armed with cameras and taperecorders. Graffiti, debris, glass, garbage, and urban decay were the first subjects of this multimedia approach. Subsequent targets include plants, animals, streams and fruits and vegetables grown in their own gardens. Eventually, it is anticipated that a complete listening center will be developed and operated utilizing the materials produced by the students.

LAP Name: PROJECT DYNAMIC

LAP School: Dynamic Springs Preparatory School
(Private School)
210 S. Wayne Avenue
Wayne, Pennsylvania 19087
Dr. Walton B. Hill, Education Director
(687-4166)

LAP Leaders: Dr. Walton B. Hill, Leader
Mr. Harry Spatz, Co-Leader

LAP Students: The core group consists of approximately 20 students selected from grades 7 through 11.

Descriptors: Located in Delaware County, Dynamic Springs Preparatory School is a private school for students with learning disabilities and gifted children in grades 7-12.

Synopsis: The chief environmental concerns of LAP students and staff are the preservation of the natural setting of the new school campus and the development of the campus into a nature studies area. Plans specify the creation of a micro-watershed and pond, stream improvements, and various components of an outdoor laboratory on the 25 acres campus. At first, students are taking measures to prevent continued degradation of the site on which the new school is being constructed. Erosion controls are being installed, and water-runoffs strengthened. Also, the students are attempting to control stream flooding by installing gabions and weirs. Subsequent activities include the test plots and succession-studies sites. Learning activities center on data collection and interpretation as students perform a thorough ecologic profile of the campus. Water and soil testing, macro- and microbiologic studies, plane-table mapping, and transect analysis are being performed. Additionally, the students have established weather-monitoring capabilities and have commenced an investigation of the local ecologic heritage in this historical region.

LAP Name: Project LISTEN -- Learning and Its Sensitivity to Environmental Noise

LAP School: Amosland Elementary School
(Ridley School District)
Amosland Road
Norton, Pennsylvania 19070
Mr. Thomas A. Pugh, Principal
(LE4-1900)

LAP Leaders: Dr. Herbert Pless, LAP Leader
Mr. Bernard Laskin, Co-Leader

LAP Students: A total of 110 students from grade 6 of Amosland Elementary School; and 20 students ages 11-14 attending the W. and E. Martin School for Hearing Handicapped, in Philadelphia.

Descriptors: Ridley School District is a suburban system located in southern Delaware County. Amosland Elementary School enrolls 758 students in grades K-6.

Synopsis: During recent years, the Ridley Community has experienced marked increase in noise levels as a result of highway repairs, excavation, alterations, demolition, and construction of new buildings. This, added to punctual sonic phenomena attributed to aircraft in flight patterns from Philadelphia International Airport, may have seriously affected environmental stability. The impact of this noise pollution on teachers and students, may be such things as irritability and inability to communicate effectively. Accordingly, student activities focus on measuring noise levels at selected sites, determining the effect of noise on learning in the schools, making recommendations regarding alleviation of unhealthy conditions, and producing a more aware community concerning noise pollution through distribution of student newsletter entitled "Good Vibrations." Using sensitive instruments, students observe, record and interpret readings from noise sources such as rock music, motorcycles, buses, jet planes, and supermarkets. Special features of the LAP are visitations to the Martin School for Hearing Handicapped and an outdoor camp where students learn to use senses other than hearing in order to learn and communicate.

LAP Name: SCRAP--Schools Conserve and Recycle Paper

LAP School: North Penn High School
(North Penn School District)
1340 Valley Forge Road
Lansdale, Pennsylvania 19446
Mr. R. Kenneth Pierce, Principal
(368-0400)

LAP Leaders: Mr. Edward Klavon, Leader
Miss Deborah Aschenbrand, Co-Leader

LAP Students: Approximately 40 students from grades 10-12.

Descriptors: North Penn High School, located in suburban Montgomery County, enrolls a total of 2,532 students in grades 10-12.

Synopsis: LAP students aim primarily to establish and operate a recycling program for paper used by students, teachers and administrators within the school, and newspapers from the community. Additionally, the students are examining the economic and energy-related parameters of recycling various wastes including paper, metals and glass. Learning activities include collection and recycling of paper, drama skits and plays, community surveys, information dissemination campaigns and air pollution monitoring using the Ringleman scale. An integral part of LAP activities is to begin planning for the establishment of an outdoor environmental laboratory and camping area for use by all students in the school system. Participation in a cooperative effort to restore and maintain the North Penn High School outdoor smoking area in a clean and presentable condition.

Matthew M. Hickey
Project Director
Telephone: 643-7600

Project KARE
Colony Office Building
Route 73 & Butler Pike
Blue Bell, Pa. 19422

FACT SHEET

Name: Project KARE (Knowledgeable Action to Restore our Environment)

Purpose: To strengthen environmental education in the region.

Sponsors: The five Intermediate Units of Bucks, Chester, Delaware, Montgomery, and Philadelphia counties; the Roman Catholic Archdiocese of Philadelphia; and the Philadelphia Model Cities Program.

Grantee: The Montgomery County Intermediate Unit serves as Local Educational Agency; Dr. Allen C. Harman, Executive Director

Funding: United States Office of Education, HEW, under Title III, Section 306 of ESEA.

Constituency: Schools in the Southeastern Pennsylvania region offering basic education in grades K-12; including 70 public-school districts and over 300 non-public schools.

Objectives: Local schools are encouraged to:

- Teach, experience, and learn rural-urban-suburban cooperation in environmental problem-solving.
- Utilize learning approaches which are action-oriented and interdisciplinary.
- Foster community participation in environmental education.

Activities: LOCAL ACTION PROGRAM (LAPs) -- are conducted by local schools with funds and technical assistance from Project KARE. Each LAP school engages in interdisciplinary activities dealing with specific environmental problems such as stream pollution and community deterioration. Over 20,000 students have participated directly in the 59 LAPs conducted since 1971. In many cases, LAP activities have been incorporated into the ongoing curricula of sponsoring schools.

ENVIRONMENTAL STUDIES CONSULTANT SERVICES (ESCS) -- are provided to requesting schools by project staff who perform site-analyses, in-service training, and curriculum design. Over 90 percent of constituent school districts are utilizing this technical assistance.

ENVIRONMENTAL EDUCATION RESOURCE CENTER (EERC) -- provides students, teachers and community with information, research findings and curriculum materials which have been annotated by project staff according to usage and quality.

Staff: Project Director, Assistant Director for Staff Services, four Environmental Specialists, and Information Specialist.